

Science and Man

Race and Intelligence

By Joshua Lederberg

Professor Arthur R. Jensen, of the University of California, Berkeley, has provoked wide controversy by his assertion that racial differences in academic achievement are based on genetic differences in intelligence. This controversy has, in part, arisen from what I believe to be a misinterpretation of Dr. Jensen's assertions, often from a failure of popular commentators to heed the cautions that Dr. Jensen himself has attached to some of his speculations. In particular, he has himself remarked that "High heritability by itself does not necessarily imply that the characteristic is immutable. Under greatly changed environmental conditions, the heritability may have some other value, or it may remain the same while the mean of the population changes."

This remark is however counterbalanced by the contradictory stress that Jensen has placed on the futility of compensatory education, and on the utility of the I.Q. as a measure of biological competence. This leaves some uncertainty about whether Dr. Jensen subscribes to "Jensenism," a popular exposition of his writings, such as appeared in an article by Lee Edson in the New York Times Magazine for August 31, 1969.

My criticisms, which follow, are directed to "Jensenism".

Questions Raised

Out of many complex and intertwined questions raised by Jensenism, I extract two for separate discussion: 1) is the difference in average "intelligence" scores between races mainly hereditary? and 2) if so, what if any pragmatic meaning would this have?

The arguments that Jensen has assembled for hereditary factors

in the variation of intelligence within populations of white Englishmen and Americans have been discussed and accepted by geneticists for at least 40 years. The novelty of Jensen's discussion is mainly that he is a psychologist, and most educators and psychologists have rejected or been unaware of genetic research on human behavior. In this, they were not altogether unwise, for our methods of genetic research in this field are so feeble that it is misleading to report these results under a photomicrograph of chromosomes. This could only have been intended to convey a flavor of experimental rigor which human behavioral genetics is a long way from approaching. For precisely that reason I must commend that part of Jensen's exposition that encourages further research, although I see much less hope for useful answers from these statistical studies than is offered by laboratory experiments on brain development and function.

Jensen himself pointed out that conclusions about the heritability of intelligence, from adoptions and separated twins within a white culture, could not fairly be transferred to the variation between races. That racial groups might have hereditary differences in intelligence is a perfectly plausible speculation. But until the manifest environmental factors are correctly controlled or assessed, any assertion about whose genes score highest is pure prejudice.

Dr. Jensen would not, I believe, disagree with these remarks; but he then adds that he has found consistently poorer performance of black compared to white groups whose

"socio-economic conditions were controlled" so as to assure comparable environments. This control is crucial to Jensen's approach to these studies. In the end, however, it can only reflect a subjective judgment about which socio-economic (not to mention cultural) factors are most important for intellectual development. Can anyone measure the total impact of being black in a white-dominated world? Can we say that environmental influences have been controlled, in the face of the knowledge that the trends of infant mortality and birthweight among blacks, although constantly improving, lag so far behind whites?

Effect on Education

The second point is even more important, for Mr. Edson implies that "no amount of compensatory education will improve this ability (to reason abstractly) since it is mainly inherited." This fatalism is a vicious extrapolation of "Jensenism" whose thrust is contradicted by every finding of modern biological research on how the genes influence development. If hypothetical racial genes did impair intelligence, they could operate like diabetes or hereditary goiter which are remediable by diet and hormone treatment.

I would agree that effective educational regimes are doomed to fail if they deny the possibility of biological as well as cultural differences among children. I do not agree that we know much about racial-genetic components of those differences.

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